

CLAIMS

What is claimed is:

- 1 1. A rack mount computer server, comprising:
2 a central processing unit ("CPU");
3 a system memory coupled to the CPU;
4 a server management device coupled through a bus to the CPU that is configured to control
5 server management architecture;
6 wherein a communications link is established between the server management device and a
7 remote console through a front network port located at a front surface of the server or through a
8 rear network port located at a rear surface of the computer server.
- 1 2. The server of claim 1 wherein:
2 access to the server management device is provided through a switch that permits access
3 from either the front network port or the rear network port.
- 1 3. The server of claim 2 wherein access to the server management device is provided through
2 an RJ-45 receptacle located at the front and at the rear of the server.
- 1 4. The server of claim 2 further comprising:
2 a data port in the front of the server;
3 wherein the data port provides access to server operating system debug routines.
- 1 5. The server of claim 4 wherein the data port is an RS-232 serial data port.

1 6. The server of claim 4 wherein the front network port that provides access to the server
2 management device and the data port that provides access to the operating system debug routines
3 are provided by separate connectors located at the front of the server.

1 7. The server of claim 4 wherein the front network port that provides access to the server
2 management device and the data port that provides access to the operating system debug routines
3 are provided by an adapter that connects to a single connector located at the front of the server.

1 8. An adapter for diagnosing a rack mount server comprising:
2 a first connector for accessing server management hardware within the rack mount server;
3 a second connector for accessing operating system debug information in the rack mount
4 server;
5 a third connector for passing data between an external computer system coupled to the first
6 or second connectors and the rack mount server;
7 wherein the third connector mates with a mating connector accessible from the front of the
8 rack mount server.

1 9. The adapter of claim 8 wherein:
2 the first connector is an RJ-45 connector.

1 10. The adapter of claim 9 wherein:
2 the second connector is a nine-pin RS-232 serial data connector.

1 11. A method of diagnosing a rack mount server while the server is installed in a rack,
2 comprising:

3 connecting an external computer to the server using a debug port located on the user-
4 accessible faceplate at the front the server; and

5 executing server operating system debug algorithms using the external computer.

1 12. The method of claim 11, further comprising:

2 accessing data and routines in a server management device in the server using a remote
3 console;

4 connecting to the server management device through a rear network port at the rear of the
5 server or at a front network port at the front of the server.

1 13. The method of claim 12, further comprising:

2 selectably switching to the front server management connection if an external computer is
3 physically coupled to the front network port.

1 14. The method of claim 13, further comprising:

2 accessing the debug and front network ports through an adapter connected to the front of
3 the server.

1 15. The method of claim 13, further comprising:

2 accessing the debug and network ports directly from the front of the server.

1 16. The method of claim 12, wherein the debug port is an RS-232 serial data port.

1 17. The method of claim 12, wherein the network port is an IP port.

1 18. A rack mount computer server comprising a central processing unit ("CPU") and a system
2 memory coupled to the CPU, and further comprising:

3 a server management means;

4 wherein a data link is established between the server management means and an external
5 diagnostic computer through a front port means located at a front surface of the server or through a
6 rear port means located at a rear surface of the computer server.

1 19. The server of claim 18 further comprising:

2 a switch means that selectably connects the server management means to either the front
3 port means or the rear port means.

1 20. The server of claim 19 wherein;

2 the switch means ordinarily connects the server management means to the rear port means,
3 but wherein the switch means connects the server management means to the front port means if the
4 front port means is coupled to an external diagnostic computer.

1 21. The server of claim 19, wherein the front port means further permits the external diagnostic
2 computer to access debug information from the server operating system.

- 1 22. The server of claim 21, wherein the front port means comprises a network data connector
- 2 and a serial data connector.

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